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Letter to the Editor

The elephant in the room: In-hospital resuscitation research is impeded by flawed time data

ARTICLE INFO

ABSTRACT

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Not applicable.

The recent article by Fekete-Györ, et al.,¹ looks at multiple studies examining the effect of COVID-19 on in-hospital resuscitation rates. The authors highlight both the need for and the difficulty of evaluating the effects of changes in practice due to the pandemic. These and other studies reasonably assume that delay in treatment due to protocol changes, including the donning of personal protective equipment (PPE), is the principal underlying cause of increased mortality.

But unfortunately, time from arrest to start of the resuscitation effort is a critical process variable that continues to elude resuscitation researchers. As stated in the Limitations: “[T]here is no way to quantify the delay that was presumably incurred by the donning of PPE....” This points to the flaw common to virtually all studies of in-hospital resuscitation—the “elephant in the room” that researchers rarely acknowledge. The authors emphasize the importance of critically examining protocol changes due to the pandemic, and determining treatment delays are central to that goal. But in-hospital resuscitation response times have *never* been reported accurately, so clearly it is impossible to make the link from Covid-19 changes to treatment delays.

The first In-Hospital Utstein Guidelines in 1997 emphasized the importance of capturing intervals from time of arrest to critical interventions,² and the AHA’s 2000 Emergency Cardiac Care Guidelines called improving time-interval data “the key to future high-quality research.”³ Yet more than two decades later, the problem remains. The most recent iteration of the Utstein Guidelines makes no mention of time intervals,⁴ and resuscitation registries continue to report without reservation time-interval data that are clearly not credible (e.g., mean times to first defibrillation of one minute).⁵

More accurate time capture is not necessarily difficult, and the importance of the data more than justifies the effort. In the majority of arrests—both before and during the pandemic—important time-interval data were collected automatically: most occurred under cardiac monitoring, and the monitor record in most cases would show the time of arrest, time of first chest compressions, and time of first defibrillation. (For unmonitored arrests, less direct approaches are required.⁶)

It is hard to fathom why better time-interval data from in-hospital

resuscitation attempts are not acquired and reported, but hopefully the recent focus on treatment delays during the pandemic will stimulate efforts to address this problem. In so doing, it may help to remove a fundamental impediment to all in-hospital resuscitation research.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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